

## Claims:

1. A disaster prevention system comprising:

a fire sensing unit for outputting fire information  
5 including fire sensing information and fire sensor  
identification information; and

a repeater for displaying a location of the fire, and  
outputting a fire alarm when receiving fire information from  
the fire sensing unit;

10 a signal processing unit for analyzing other fire  
information including the fire sensor identification  
information, fire occurrence information and repeater  
identification information inputted from the repeater,  
displaying the location of the fire, and outputting a fire  
15 alarm when sensing a fire,

wherein said signal processing unit further includes:

a memory including an identification information DB  
(DataBase) for storing the fire sensor identification  
information, the fire sensing information, and the repeater  
20 identification information;

a fire occurrence detecting unit for confirming fire  
occurrence through other fire information inputted from the  
repeater, and sensing information regarding the location of  
the fire from the identification information DB through the  
25 fire sensor identification information when a fire occurs;

a controlling unit including a fire signal processing unit for outputting a control signal driving the initial fire fighting device installed at the location of the fire, when inputting a fire occurrence signal from the fire occurrence detecting unit; and

an initial fire fighting device drive unit for driving the initial fire fighting device in response to the control signal inputted from the fire signal processing unit.

2. The system as set forth in claim 1, further comprising:

a sprinkler performing opening/closing operations by a solenoid valve driven in response to a control signal inputted from the initial fire fighting device drive unit.

3. The system as set forth in claim 2, wherein said repeater further includes a first power line communication interface unit for transmitting a carrier signal containing the fire information to the signal processing unit, such that the carrier signal is mixed with AC power of a power line, and for receiving the carrier signal from the signal processing unit, such that the carrier signal is mixed with AC power of a power line, and

wherein said signal processing unit further includes

a second power line communication interface unit for

receiving a carrier signal mixed with AC power of a power line from the first power line communication interface unit, and for transmitting a carrier signal containing a control signal to the initial fire fighting device, such that the carrier signal is mixed with AC power of the power line.

4. The system as set forth in claim 3, wherein further comprising an exclusive fire line as a fire-resistant cable between the first and second power line communication interface units, in addition a pre-installed power line.

5. The system as set forth in any one of claims 1 to 4, wherein said repeater further comprises:

an inverter for converting AC power from the power line into DC power;

a step-down transformer for converting DC power inputted from the inverter into power; and

a DC power source supply including a charging circuit for charging a battery with the power inputted from the step-down transformer.

6. The system as set forth in any one of claims 1 to 4, wherein said memory further comprises:

a telephone number DB for storing telephone numbers of a plurality of government offices and managers; and

a voice memory for storing voice information related to an installed location of the fire sensing unit including a fire sensor corresponding to the fire sensor identification information;

5 wherein said signal processing unit further comprises a fire report processing unit for selectively outputting telephone numbers of corresponding government offices and corresponding persons based on the telephone number DB and a telephone call control signal when inputting a fire  
10 occurrence sensing signal from the fire occurrence detecting unit,

the system further comprising:

a call circuit unit including:

15 a dial controller for generating a DTMF (Dual Tone Multi-Frequency) signal corresponding to a telephone number inputted from the fire report processor, and outputting it to a telephone office;

20 a tone detecting unit for detecting a tone related to state information of a called telephone from the telephone office; and

a voice transmitting unit for transmitting a voice signal to the called telephone; and

25 a voice processing unit for outputting voice information through the call circuit unit under control of the fire report processor.